

# ANTHRACITE PRODUCTION & EXPORTS A WORLD MAP



**MARSTON**

EXPERIENCE • INSIGHT • RESULTS

**World Coke & Anthracite Summit**  
**Krakow, Poland**  
**16-17 March 2009**

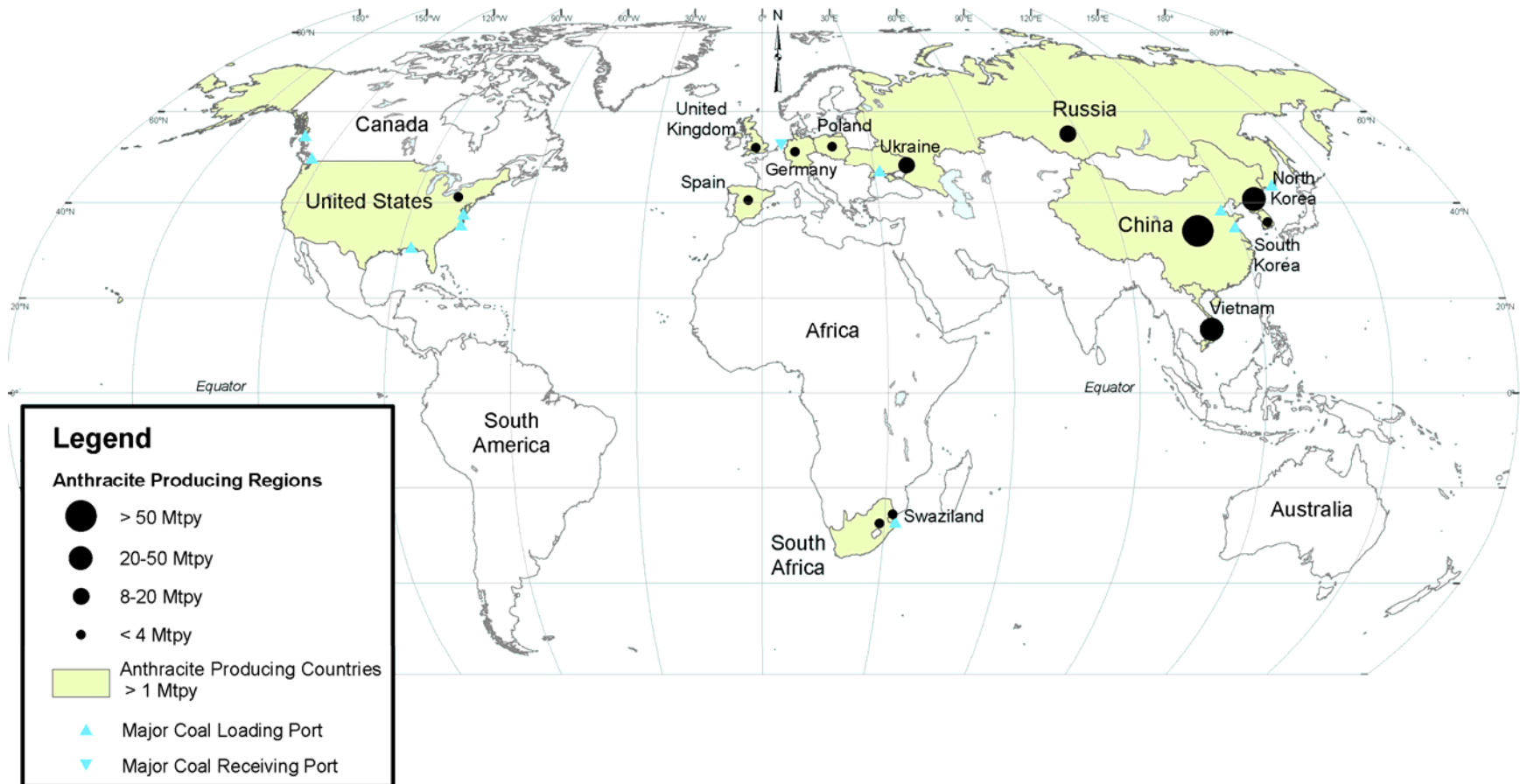
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# Today's Presentation



- **Production Trends and Key Producers**
- **Major Exporters and Importers**
- **Pinpointing Potential New Sources of Anthracite Exports**

# World Anthracite Production



# Estimated Anthracite Resources

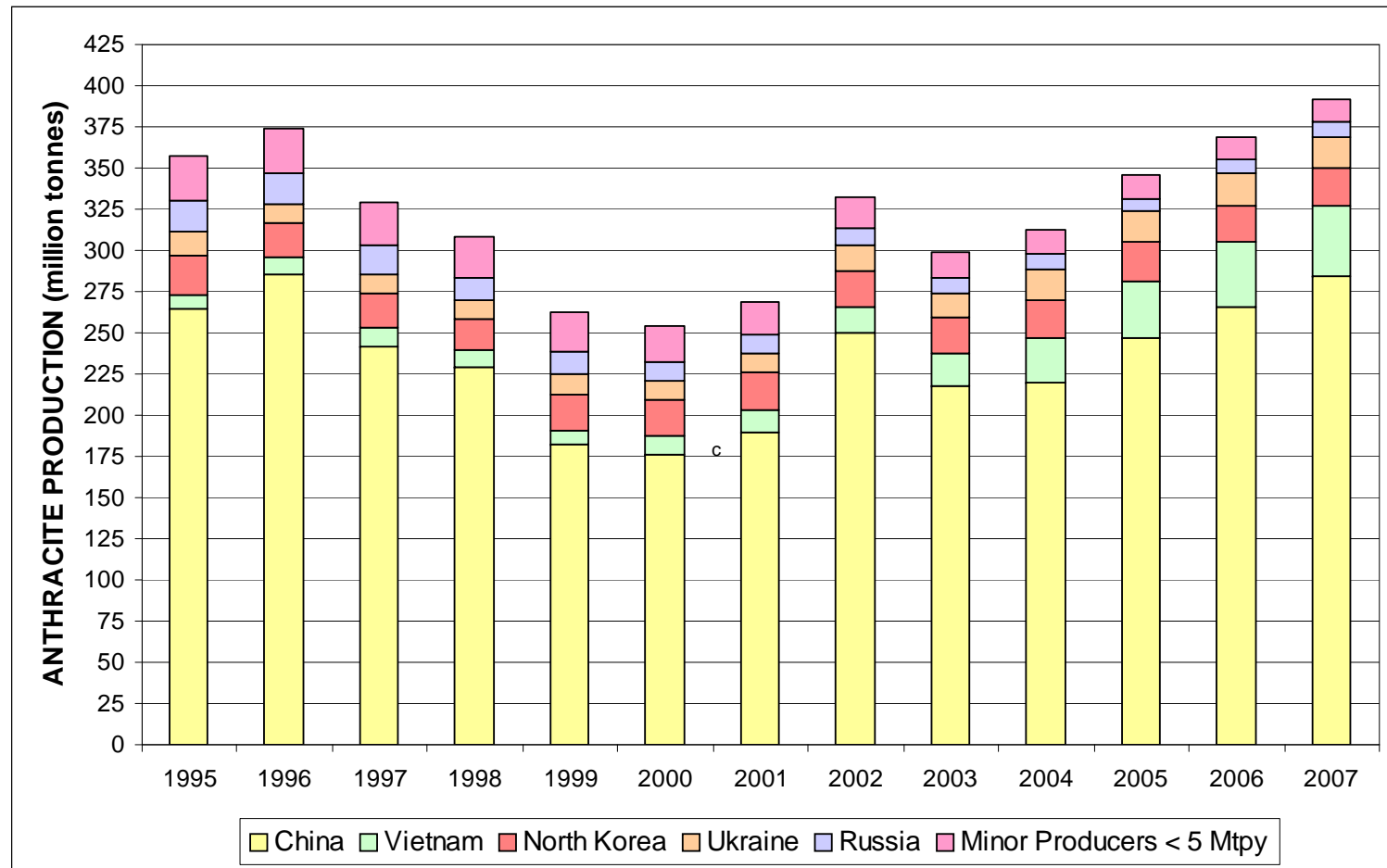


COUNTRY	REMAINING ESTIMATED RECOVERABLE RESOURCES AS OF END OF 2007 (MT)	NOMINAL PRODUCTION RATE (Mtpy)	REMAINING RESOURCE LIFE (Years)
China	6,080	275.0	22
Russia	6,870	9.0	763
Ukraine	5,790	20.0	290
Vietnam	2,260	40.0	57
North Korea	1,530	22.5	68
South Africa	710	2.5	284
South Korea	240	2.8	86
Spain	200	3.5	57
United States	60	1.6	38
Poland	63	0.25	253

Producing countries only. Canada also has over 100 Mt of recoverable resources at Mount Klappan, which is currently in development.

# World Anthracite Production

## China - Over 275 Mt and Growing



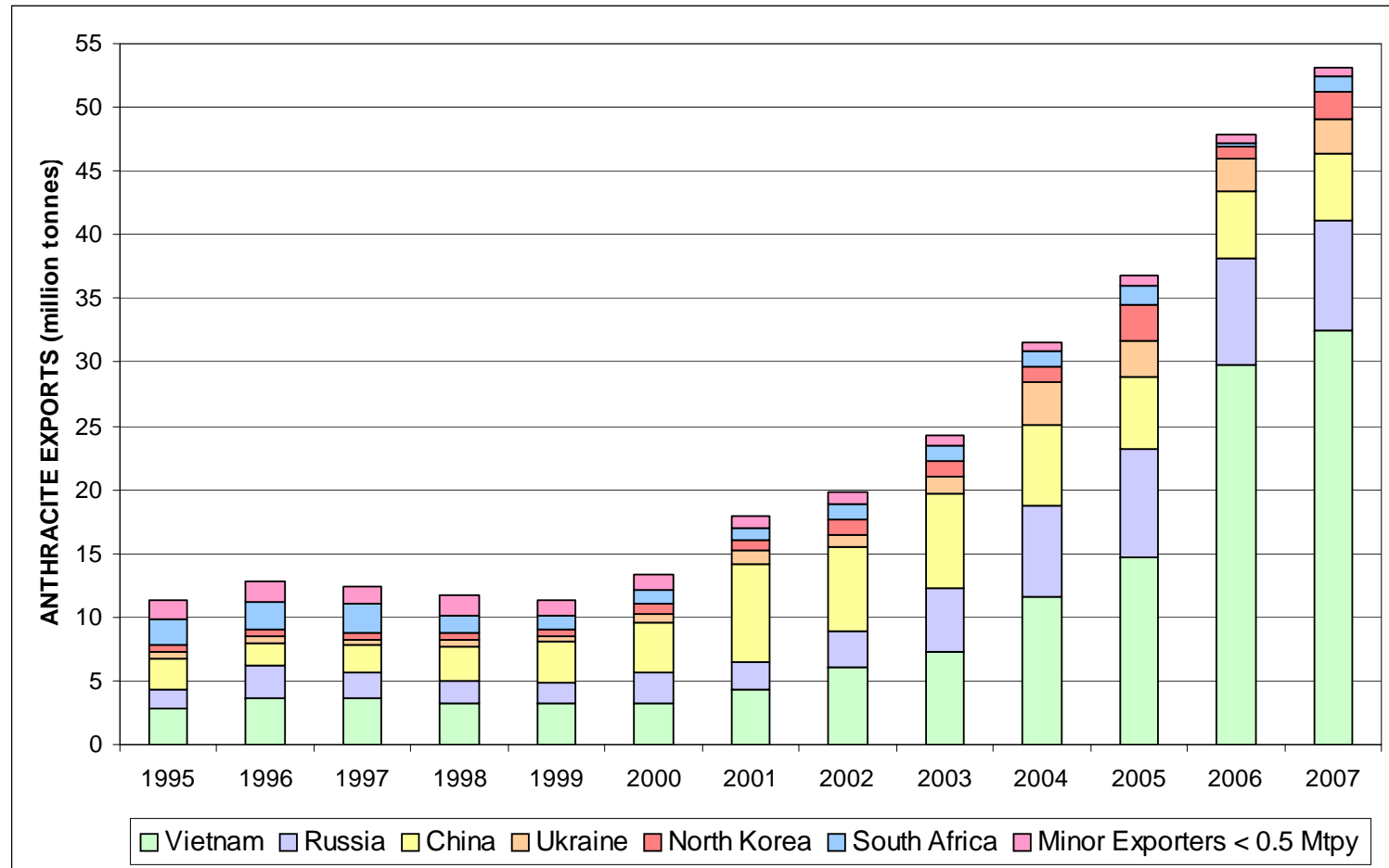


# Anthracite Exporters

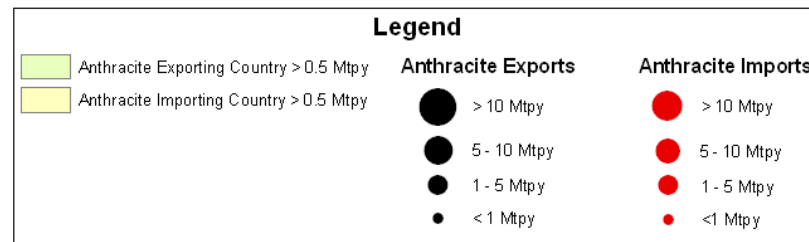
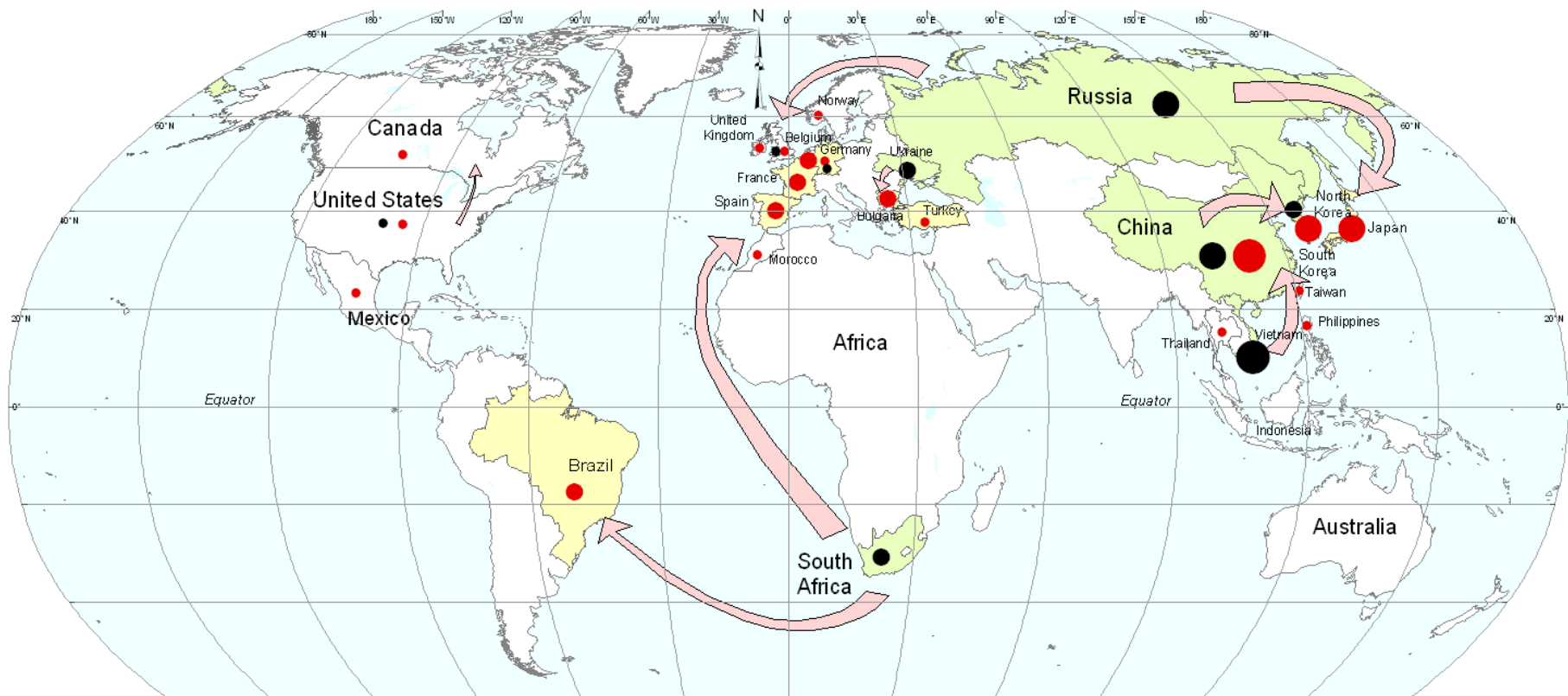


RANK	SOURCE COUNTRY	ANTHRACITE EXPORTS (ktonnes)					
		2002	2003	2004	2005	2006	2007
1	Vietnam	6,047	7,262	11,636	14,700	29,783	32,500
2	Russia	2,844	4,994	7,103	8,442	8,425	8,628
3	China	6,602	7,368	6,384	5,645	5,175	5,255
4	Ukraine	1,008	1,457	3,362	2,931	2,569	2,694
5	North Korea	1,100	1,115	1,200	2,755	1,000	2,200
6	South Africa	1,223	1,318	1,156	1,492	287	1,199
7	United States	339	147	196	219	263	278
8	Germany	288	230	240	293	243	250
9	United Kingdom	192	181	172	169	94	124
10	Other	118	127	67	100	60	46
Total Exports		19,761	24,198	31,516	36,746	47,899	53,173

# Seaborne Market – Was Growing Fast from Steelmaker Demand

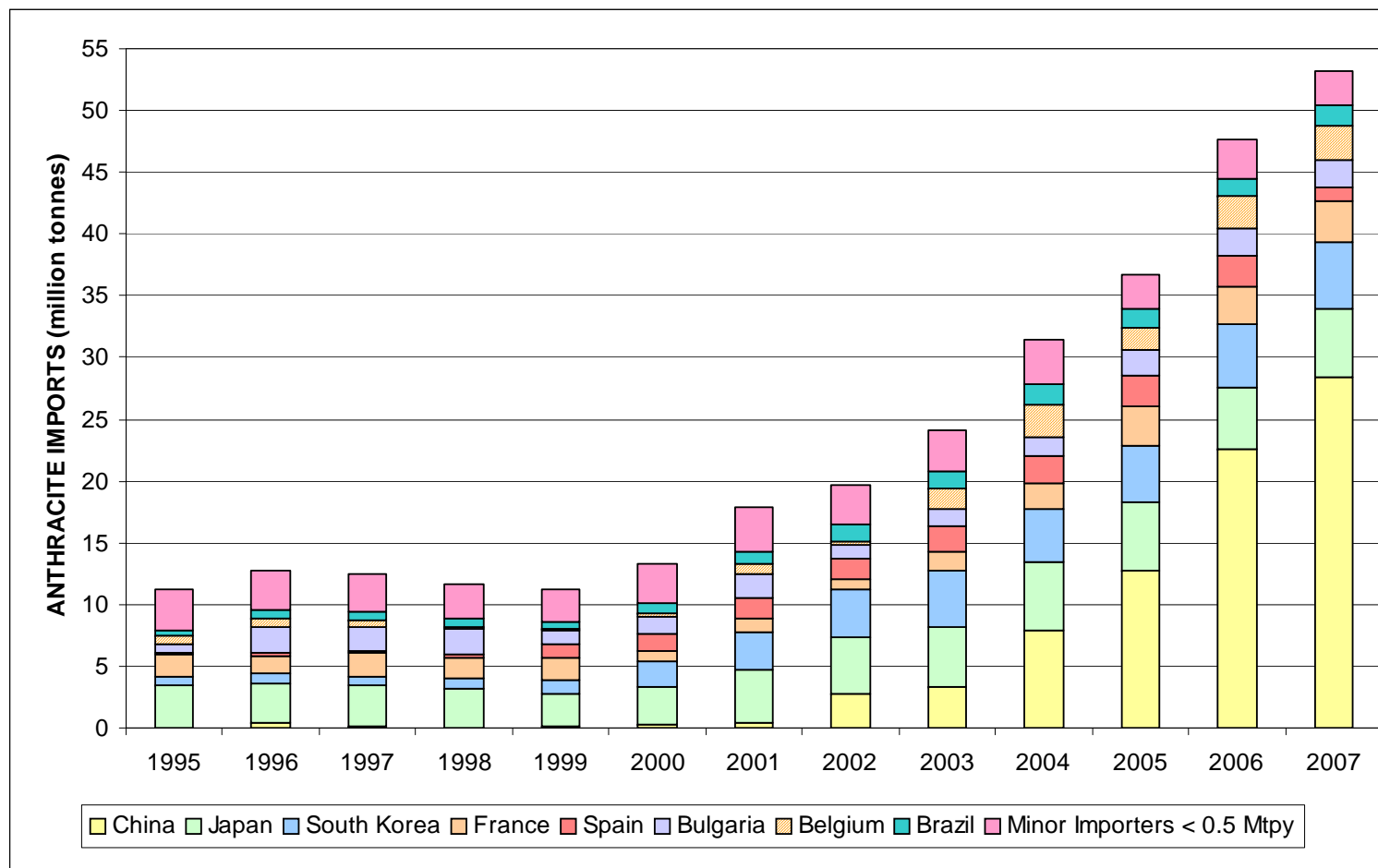


# Exporters and Importers in 2007

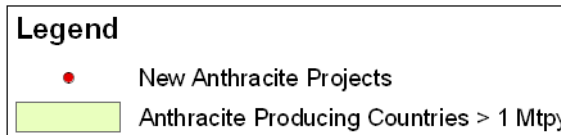




# Anthracite Imports – Significant Growth in Asia, Europe & Brazil



# New Sources of Supply

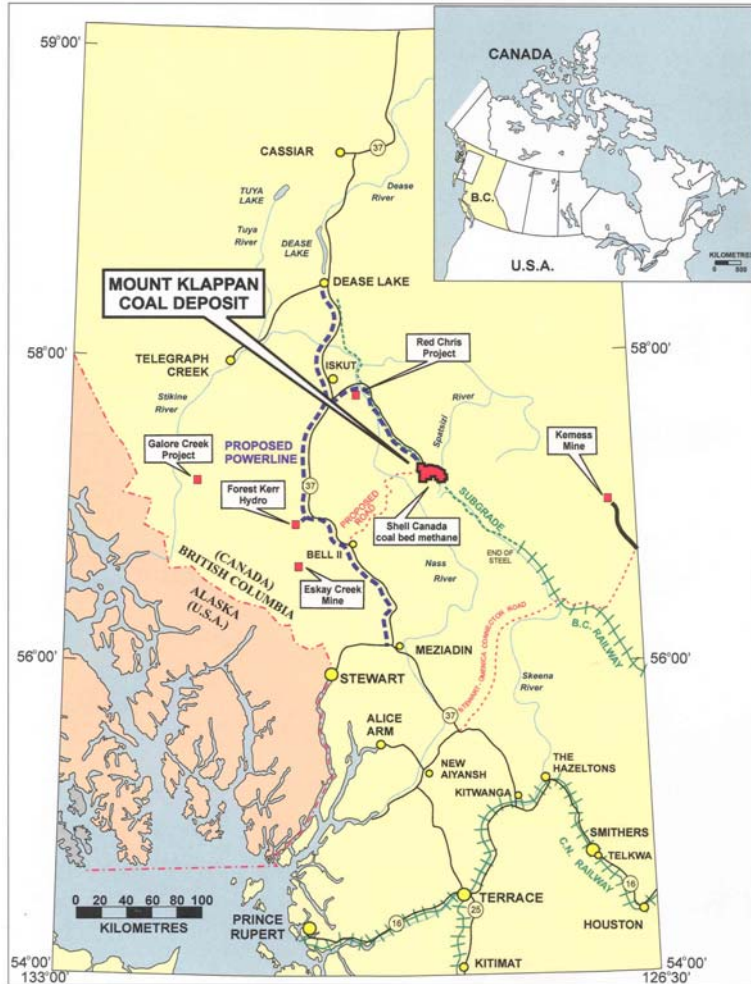


# Some Examples of Potential New Anthracite Export Sources



- **Canada**
  - Fortune Minerals Ltd. – Mount Klappan permitting
  - Westhawk Development Corp. – Groundhog exploration
- **Russia**
  - Siberian Anthracite – Ongoing expansion
- **South Africa**
  - Petmin Ltd. – Somkhele development
  - Miranda Minerals – Sesikhona Kliprand initial production
- **United States**
  - Atlantic Coal plc – Stockton Mine production resumption

# Fortune Minerals Limited Mount Klappan



Environmental Assessment underway  
1.5 to 3 Mtpy of Production by 2012  
Cost US\$91 per tonne, FOB vessel  
CDN\$656 million CAPEX

Cooperation agreement with Tahltan Nation

Transportation and Ports:

Stewart (150km) – Truck access  
Prince Rupert (330km) – Rail access  
RR track is 100 km southeast of site  
Possible extension of rail to Alaska  
Have also evaluated slurry pipeline

Potential export and domestic markets

8% Ash Coarse Coal (6 x 50mm)

10% Ash PCI Coal (0x50 mm)

High-ash fine coal for captive power generation



- Total of four resource areas covering 15,000 ha containing the following anthracite resources:
  - 108 Mt Measured
  - 123 Mt Indicated
  - 2,572 Mt Inferred and Speculative
- Bankable feasibility study completed on Lost Fox
  - 102 Mt ROM reserves;
  - 60 Mt salable @ 10% ash



# Westhawk Development Groundhog



- Controls 8,877 ha of exploration licenses in British Columbia since initial acquisition in 2005
- Located 50 km northwest of Mount Klappan
  - Transportation to port most critical issue
  - Could potentially “share” transportation infrastructure with Fortune, although no agreements yet in place
  - Are also evaluating on-site IGCC and CTL options
- Estimated resources
  - 105 to 115 Mt in-place controlled
  - Additional 170 to 185 Mt in-place optioned

# Siberian Anthracite Expansion Novosibirsk Region, Siberia



Map courtesy Siberian Anthracite

## Over 200 Mt of reserves in Gorlovsky Basin

- Gorlovsky, Urgansky and Kolyvansky open-cast mines

## Expansion projects continuing

- Listvyanskaya-2 washing plant completed end of 2007.
- New pits in Krutikhinsky and Kolyvansky areas started

# Siberian Anthracite Expansion Novosibirsk Region, Siberia



- Production to be increased in three stages
  - 3 Mtpy in 2008 – on track
  - 6 Mtpy by 2011 – potential with additional investment
  - 10 Mtpy by 2013
- High quality sized anthracite - 4% to 6% ash products plus washed fines
- 70% - 80% of production exported worldwide

# Petmin Ltd. Somkhele



- Sold Springlake (0.6 Mt 2008) to Shanduka Coal
  - Announced Oct 2008; approved Feb 2009
- 51 Mt mineable in-place resources; 16 Mt of salable reserves
  - Additional exploration potential on 23k ha
- Surface mine and plant commissioned June 2007
  - 46% plant yield
  - Sold 0.5 Mt in 2008
  - Will likely increase to 0.7 Mt with new de-stoning plant June 2009
- 0.6 Mtpy export throughput at Richards Bay thru 2012
- Market will determine potential expansion: will decide in 2010
  - Expand mining and capacity of wash plant
  - Increase port throughput to 1.4M tpy



- Total estimated resource of 22 Mt on 884 ha in KwaZulu-Natal
- Mining license on 5.4 Mt resource issued Jan. 7, 2009
  - Ilhosi Project Mining was expected to commence mining within 60 to 90 days
  - Expected production of 0.4 to 0.6 M tpy
- Exploration focused on both surface and underground mining with goal of LOM of 20 years.



# Atlantic Coal plc

## Stockton Mine, USA



- UK based coal mining company formed Nov. 2007 by reverse take-over of Stockton Coal group
- Surface mine produced 200k tpy of ROM coal in early 2000s
  - minimal production last 3 years
- 200-tpd preparation plant completed Feb 2007
- Target of 150k tpy clean plus 150k tpy ROM for total sales of 300k tons in 2009
  - 15% of total US anthracite production

# Conclusions



- **Seaborne Anthracite Markets have slowed with slowdown in world steel demand and production**
- **Key market for future continues to be ultra-low PCI but coke-making and coke replacement are also high value markets**
- **Vietnam, China and Russia will remain Key Suppliers**
- **Growth in China and Asian economies drives demand**
- **Shift to domestic consumption in Vietnam could result in increased demand and greater opportunities for new projects in Russia, South Africa, Canada and USA**

# THANK YOU!



- Special thanks to:
  - Fortune Minerals, Ltd.,
  - Energybuild plc
  - Siberian Anthracite JSC
  - Resource-Net
  - Petmin Ltd.